

CLAIMS:

1. A method of recording marks representing data in an information layer of a write-once record carrier by irradiating the information layer by means of a radiation beam, wherein a mark is written by a write pulse (10) and said information layer comprises an organic material,
- 5 characterized in that said write pulse (10) comprises a front portion (21, 22) having a write power level increasing with time.
2. Method as claimed in claim 1,
wherein said front portion (11, 21, 31) has a write power level which is continuously
10 increasing with time.
3. Method as claimed in claim 1,
wherein said front portion (22) consists of n sub-portions, n being an integer number larger
than 1, the i-th sub-portion having an i-th write power level, i being an integer number in the
15 range between 1 and n, the i-th portion preceding the (i+1)-th portion, and wherein the i-th
write power level is lower than the (i+1)-th write power level.
4. Method as claimed in claim 3,
wherein said front portion (22) consists of n portions of substantially the same duration.
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5. Method as claimed in claim 1,
wherein said front portion (31) has an end portion (31) having an increased write power level
which is higher than a normal write power level of the subsequent portions (32) of the write
pulse.
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6. Method as claimed in claim 1,
wherein said write pulse (10) comprises a time length of xT for writing a xT mark, x being an
integer number larger than 1 and T representing the length of one period of a reference clock,

and wherein said front portion has a time length of T and the remaining portion of the write pulse has a time length of $(x-1)T$.

7. Method as claimed in claim 1,
- 5 wherein the front portion of the write pulse has a time length smaller or larger than $1T$, T representing the length of one period of a reference clock.

8. Method as claimed in claim 1,
wherein write pulses (10) comprising a front portion (21, 22) having a write power level
10 increasing with time are only used for recording marks after short spaces, in particular after spaces having a time length of yT , y being 3 for a CD or DVD record carrier and being 2 for a BD record carrier.

9. Method as claimed in claim 1,
15 wherein write pulses (10) comprising a front portion (21, 22) having a time length which is dependent on the recording velocity, in particular which is increasing with an increasing recording velocity.

10. Method as claimed in claim 1,
20 wherein said write pulse has, except for the front portion, a block-shaped form having a substantially constant, gradually decreasing or slightly pulsed power level.

11. A recording device for recording marks representing data in an information layer of a write-once record carrier by irradiating the information layer by means of a
25 radiation beam, wherein a mark is written by a write pulse and wherein said information layer comprises an organic material, the device comprising a radiation source for providing the radiation beam and a control unit operative for controlling the power of the radiation beam and for providing the write pulse (10) for recording the marks,
characterized in that the control unit is operative for controlling the power of the radiation
30 beam such that said write pulse (10) comprises a front portion (21, 22) having a write power level increasing with time.